Classification Exam Name:

Class:

Date

1. Which of the following was credited for binomial nomenclature? (1pt)

a. Charles Darwin

b. Carolus Linnaeus

c. Gregor Mendel

d. James Watson

2. What are the benefits of using binomial nomenclature? (5pts)

3. Which of the following correctly exhibits binomial nomenclature? (1pt)

a. Helianthus annuus

b. *toxicodendron radicans*

c. *Eunectes murinus*

d. *Ursus Maritimus*

4. What are the different taxa within the binomial nomenclature system? List from least inclusive to most inclusive level (i.e. beginning with species). (7pts)

1. Species

2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_5. Compare and contrast the three domains. (15pts)

Eukarya

Archaea

Bacteria

6. For each of the six kingdoms, identify which domain they belong to. (6pts)

A=Archaea, B=Bacteria, E=Eukarya

Protista \_\_\_\_\_\_\_\_\_\_\_\_

Archebacteria \_\_\_\_\_\_\_\_\_\_\_\_

Fungi \_\_\_\_\_\_\_\_\_\_\_\_

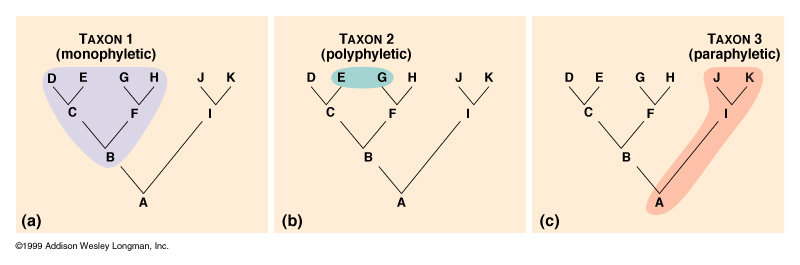
Animalia \_\_\_\_\_\_\_\_\_\_\_\_

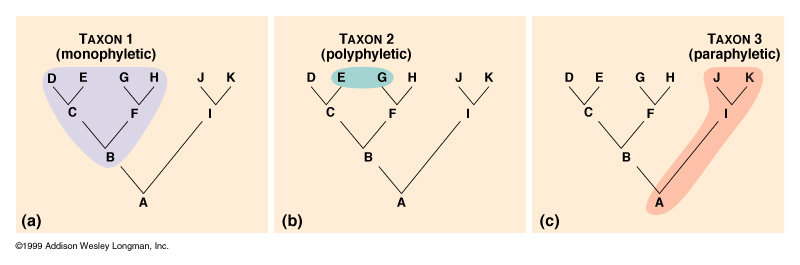
Eubacteria \_\_\_\_\_\_\_\_\_\_\_\_

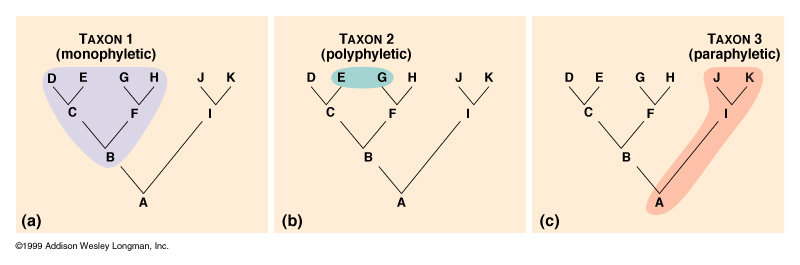
Plantae \_\_\_\_\_\_\_\_\_\_\_\_

7. Point out some significant characteristics from each of the kingdoms within the Eukarya domain. (8pts)

8. Which of the following highlights a monophyletic group? (2pts)

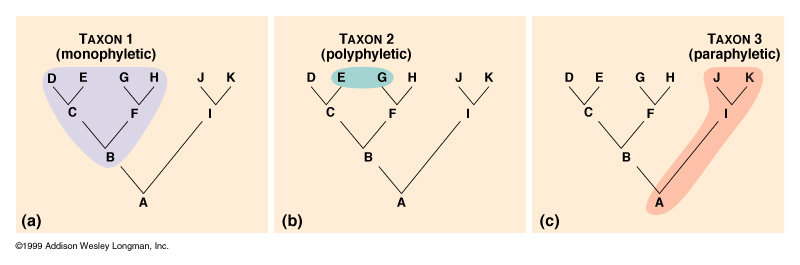
a.

b.

c.

9. What is the rule of parsimony and how does it apply to cladograms? (3pts)

10. How did the advancements in the understanding of DNA change how cladograms were constructed? (4pts)



11. Given the figure to the right, which of the following is true? (2pts)

1. G&E share a common ancestor
2. G&H share a more recent common ancestor than G&E
3. G&E are more related that G&H
4. I only
5. II only
6. III only
7. I & II
8. I & III
9. I, II, & III

12. Why are organisms put into taxonomic categories, particularly when they don’t always follow all the requirements for that taxon? Argue for or against this grouping. (5pts)

13. Pick two of the following derived characteristics and discuss the advantages of the new adaptation: jaws, closed circulatory system, notochord, and vascular tissue (plants). Then, list an example of an organism that has that characteristic and one that does not for each of your chosen three. (6pts)

Extra Credit:

1. Get an extra point for each of the Three Stooges you can name.

2. What is the word for “Right” in nautical terms? What is the word for “Left” in nautical terms? Receive a point for each correct answer.